



Mapping Secondary Cities for Resiliency and Emergency Preparedness

Secondary Cities Geospatial
Training Workshop

Pilot Project: Cusco, Peru

June 29 – July 3 2015

WHO ARE WE?

- Office of the Geographer (GGI)
 - Uses geospatial tools to support diplomacy for security, natural disasters, and humanitarian emergencies
 - Humanitarian Information Unit of GGI
 - Promotes innovative technologies and best practices for humanitarian information management, security, and crisis response

WHAT IS THIS PROJECT?

- **Mapping Secondary Cities for Resiliency and Emergency Preparedness**
- **What are Secondary Cities?**
 - Determined by population, size, function, economic status
 - Population range between 10-50% of country's largest city
 - Urban centers of governance, logistics, production
 - Unique environments
 - Rapid population growth
 - Lacking local data
 - Data for
 - Resilience, security, emergency preparedness

LATIN AMERICA: The Place of Secondary Cities

- Cities are important hubs of population growth
 - Urban population is 54% of total global population
 - Megacities
 - **Visit:** <http://www.datainnovation.org/2015/04/visualizing-the-rise-of-megacities>
- Latin America is the most urbanized region of the world
 - 80% of the region's population lives in cities
 - Hubs of innovation
- Urbanization in Peru
 - 78.3% of total population live in cities
- Intermediate or midsized cities (<5 million) will account for largest share of urban growth in region's developing countries.

WHAT IS THE PILOT PROJECT?

- Secondary cities in Peru
- Cusco
 - UNESCO World Heritage Site
 - Historic preservation and Tourism
 - Flood and Landslides
 - Migration hub

Insert Map of Secondary cities of Peru





**Pilot
Project:
Cusco, Peru**

US Embassy:
Outreach projects
Social inclusion

University:
Data development
Training/Education
Capacity building

Regional government:
Thematic data
development
Capacity building

Peru national government:
Enhance relationships with regional
Government
Build local data sets

Industry partnerships:
ESRI (software)
GPS units/Smartphones

NGOs:
Facilitate city projects
(Sustainable Cities; EcoCities;
OpenStreetMap)

US DOS/HIU:
Partnerships with Embassies/ESTH
Promote data generation
Promote MapGive

DATA GENERATION

Data generation of Human Geography thematic areas for emergency preparedness, security, and resilience:

- 
- Language
 - Land Use
 - Health
 - Religion
 - Significant Events
 - Transportation
 - Water Supply
 - Communications and Media
 - Demographic and Human Populations
 - Economy
 - Education
 - Social Groups
 - Organizations

WORKSHOP OBJECTIVES

Learn spatial thinking

Develop geospatial skills

Data generation for:

- Emergency preparedness
- Security
- Resilience

WORKSHOP SCHEDULE

Day 1:

- Overview of workshop
- Spatial thinking and GIS
- Team selection
- Exercise 1: Examining existing data and navigating ArcMap

Day 2:

- Exercise 2: Thinking about place – creating new data
- Exercise 3: Collecting field data
- Metadata

Day 3:

- Exercise 4: Using satellite imagery
- Project development and planning

Day 4:

- Project implementation: In the field
- Exercise 5: Data sharing using Geonode

Day 5:

- Project clean-up and review
- Project presentation
- Certificates presented by Embassy personnel

WORKSHOP TOOLS

ESRI ARCGIS software

data organization and analysis

Excel/Survey123

spreadsheets and attribute data

GeoNode

data organization and sharing

Android

mapping with Smartphones using GPS

Fieldpapers

Earn a Certificate for the Workshop

Participate

- in the Pre and Post Evaluation Survey
- in the Daily Evaluation Activities
- in the Final Workshop Project

Certificate presentation ceremony

Friday afternoon, July 3

POST-PROJECT ASSIGNMENT

- Cusco activity
 - Teams will continue to develop data themes and share using Geonode
 - Onsite facilitation of data generation
 - Virtual Brown Bags: Regular follow-up with Secondary Cities team
 - Earn badges: recognition for data generation
- Progress Reports
 - 3 month and 6 month milestones

WHAT ARE THE PROJECT OUTCOMES?

- New data on priority themes as determined by partners
- Partnerships for data and on-going training
- Building local capacity in using sustainable geospatial technologies
 - Creating on-site experts
- USG support for geospatial data to inform emergency preparedness and development plans

RESOURCES

World Urbanization Prospects:

<http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf>

Roberts, B.H., 2014. Managing Systems of Secondary Cities. Brussels, Belgium: Cities Alliance:

https://www.citiesalliance.org/sites/citiesalliance.org/files/1d%20%28i%29%20-%20Managing%20Systems%20of%20Secondary%20Cities%20Book_low_res.pdf

Urbanization in Latin America:

http://www.atlanticcouncil.org/images/publications/20140205_LatAm_UrbanizationTwoPager.pdf

Climate Change Adaptation Planning in Latin American and Caribbean Cities. Final Report: Cusco, Peru:

http://www.worldbank.org/content/dam/Worldbank/document/LAC/Climate%20Change%20Adaptation%20Planning%20for%20Cusco_FINAL.pdf